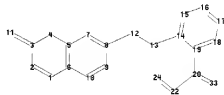
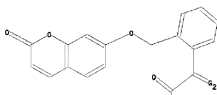


<http://www.cas.org/support/stngen/stdoc/properties.html>

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chain nodes :
11 12 13 20 22 23 24 25 26 27 28 29 33
ring nodes :
1 2 3 4 5 6 7 8 9 10 14 15 16 17 18 19
chain bonds :
3-11 8-12 12-13 13-14 19-20 20-22 20-33 22-23 22-24 25-26 25-27 28-29

ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 14-15 14-19 15-16 16-17
17-18 18-19
exact/norm bonds :
1-2 1-6 2-3 3-4 3-11 4-5 8-12 12-13 20-33 22-23 22-24 25-27 28-29
exact bonds :
13-14 19-20 20-22 25-26
normalized bonds :
5-6 5-7 6-10 7-8 8-9 9-10 14-15 14-19 15-16 16-17 17-18 18-19
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G1:O,S,N

G2:[\*1],[\*2]

Match level :

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1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:CLASS 12:CLASS 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:CLASS 22:CLASS
23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 33:CLASS
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L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss full

FULL SEARCH INITIATED 16:58:25 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 65 TO ITERATE

100.0% PROCESSED 65 ITERATIONS

61 ANSWERS

SEARCH TIME: 00.00.01

L2 61 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

178.82

179.03

FILE 'CAPLUS' ENTERED AT 16:58:56 ON 21 FEB 2008

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FILE COVERS 1907 - 21 Feb 2008 VOL 148 ISS 8

FILE LAST UPDATED: 20 Feb 2008 (20080220/ED)

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<http://www.cas.org/infopolicy.html>

=> s l2

L3 3 L2

=> d his

(FILE 'HOME' ENTERED AT 16:57:42 ON 21 FEB 2008)

FILE 'REGISTRY' ENTERED AT 16:57:53 ON 21 FEB 2008

L1 STRUCTURE UPLOADED

L2 61 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 16:58:56 ON 21 FEB 2008

L3 3 S L2

=> s l2

L4 3 L2

=> d l4 ibib abs tot

L4 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1253707 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 146:81767

TITLE: Preparation of coumarin derivatives for preventing diseases and pests in crop plants

INVENTOR(S): Liu, Changling; Li, Miao; Guan, Aiyang; Zhang, Hong; Li, Zhinian; Ye, Tianjiang

PATENT ASSIGNEE(S): Shenyang Research Institute of Chemical Industry, China, Peop. Rep. China

SOURCE: Faming Zhuanli Shengqing Gongkai Shuomingshu, 15pp. CODEN: CNXXEV

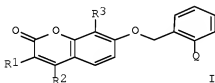
DOCUMENT TYPE: Patent

LANGUAGE: Chinese

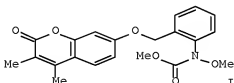
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1869032	A	20061129	CN 2005-10046514	20050526
PRIORITY APPLN. INFO.:			CN 2005-10046514	20050526
OTHER SOURCE(S):	CASREACT 146:81767; MARPAT 146:81767			
GI				



I



II

AB The title coumarin compds. I [wherein Q = MeO-CO-C(-)=CHOMe, MeO-CO-C(-)=NOMe, MeNH-CO-C(-)=NOMe, or MeO-CO-N(-)OMe; R1 = H or Cl; R2 = substituted pyridyl; or R1+R2 = (CH2)3 or (CH2)4; and R3 = H, halogen, CN, nitro, alkyl, alkenyl, alkynyl, haloalkyl, alkoxy, etc.] and stereoisomers thereof are prepared as pesticides. For example, the patent disclosed the preparation of the compound II. The coumarin compds. have excellent bactericidal activity and systemic activity, and can be used to prevent diseases in crop plants such as *Plasmopara viticola*, *Thanatephorus cucumeris*, *Pyricularia grisea*, *Alternaria solani*, *Phytophthora infestans*, *Erysiphe cichoracearum*, *Pseudoperonospora cubensis*, *Botrytis cinerea*, *Puccinia*, *Mycosphaerella tassiana*, and *Erysiphe graminis*. Meanwhile, the coumarin compds. have excellent pesticidal activity, and can be used to prevent pests from crop plants, such as *Mythimna separata*, *Plutella xylostella*, *Myzus persicae*, *Tetranychus cinnabarinus*, *Tetranychus urticae*, *Henosepilachna sparse*, *Tetranychus truncatus*, and *Culex pipiens*.

L4 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:429410 HCAPLUS [Full-text](#)

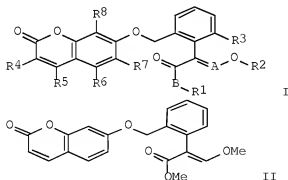
DOCUMENT NUMBER: 142:430138

TITLE: Preparation of benzopyrone derivatives as pesticides

and bactericides  
 INVENTOR(S): Liu, Changling; Guan, Aiyang; Zhang, Hong; Zhang, Mingxing; Li, Zhengming; Li, Miao; Li, Lin; Li, Zhinian; Hou, Chungqing  
 PATENT ASSIGNEE(S): Shenyang Research Institute of Chemical Industry, Peop. Rep. China  
 SOURCE: PCT Int. Appl., 37 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005044813	A1	20050519	WO 2004-CN1255	20041104
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1616448	A	20050518	CN 2003-10105079	20031111
EP 1683792	A1	20060726	EP 2004-797287	20041104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1823052	A	20060823	CN 2004-80020125	20041104
JP 2007510674	T	20070426	JP 2006-538636	20041104
US 2007037876	A1	20070215	US 2006-573529	20060324
PRIORITY APPLN. INFO.:			CN 2003-10105079	A 20031111
			WO 2004-CN1255	W 20041104

OTHER SOURCE(S): MARPAT 142:430138  
 GI



AB The title compds. I [wherein A = CH or N; B = O, S, NH, or alkylamino; R1 and R2 = independently H, alkyl, or haloalkyl; R3 = H, alkyl, haloalkyl, or alkoxy; R4-R8 = independently H, halo, CN, etc.] or isomers thereof are prepared as pesticides and/or bactericides. For example, the compound II was

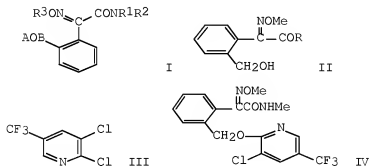
prepared from 7-hydroxybenzopyran-2-one and (E)-2-[2-(bromomethyl)phenyl]-3-methoxypropenoic acid Me ester (76.5%). I are suitable for prevention or cure of the following plant diseases: grape downy mildew, rice blast, tomato early blight, tomato late blight, wheat rust disease, wheat leaf spot, wheat powdery mildew, cucumber powdery mildew, cucumber downy mildew, cucumber botrytis, and so on. For example, II showed 100% effect on cucumber powdery mildew at 200 ppm.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1993:59429 HCAPLUS Full-text  
 DOCUMENT NUMBER: 118:59429  
 TITLE: Preparation of (alkoxyimino)benzeneacetamide derivatives as agrochemical fungicides  
 INVENTOR(S): Hayase, Yoshio; Takenaka, Hideyuki; Masuko, Michio  
 PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04182461	A	19920630	JP 1990-312519	19901116
JP 2897789	B2	19990531		

PRIORITY APPLN. INFO.: JP 1990-312519 19901116  
 OTHER SOURCE(S): MARPAT 118:59429  
 GI



AB The title compds. [I; R1, R2 = H, alkyl; R3 = alkyl; A = mono- or bicyclic aryl or heteroaryl containing ≥1 alkyl, alkenyl, alkynyl, alkoxy, halo, haloalkyl, etc.; B = CH2, bond] are prepared Stirring 1.5 g ester II (R = MeO) and a solution of MeNH2 in MeOH at room temperature gave 1.05 g amide II (R = MeNH), which (200 mg) was stirred with a suspension of 60% NaH in THF at room temperature and then with 234 mg pyridine derivative III to give 330 mg amide IV. IV controlled 97% Pyricularia oryzae, 90% Rhizoctonia solani, and 100% Sphaerotheca fuliginea at 500 ppm.

<http://www.cas.org/infopolicy.html>

=> s liu, C?/au  
L4 24592 LIU, C?/AU

=> s guan, a?/au  
L5 56 GUAN, A?/AU

=> s zhang, h?/au  
L6 38000 ZHANG, H?/AU

=> s zhang, m?/au  
L7 14910 ZHANG, M?/AU

=> s li, z?/au  
L8 37097 LI, Z?/AU

=> s li, M?/au  
L9 17222 LI, M?/AU

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L10 26609 LI, L?/AU

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=> s hou, c?/au  
L12 1522 HOU, C?/AU

=> s (l4 or l5 or l6 or l7 or l8 or l9 or l10 or l11 or l12) and (benzopyrone or coumarine)

572 BENZOPYRONE  
210 BENZOPYRONES  
699 BENZOPYRONE  
(BENZOPYRONE OR BENZOPYRONES)

111 COUMARINE  
37 COUMARINES  
145 COUMARINE  
(COUMARINE OR COUMARINES)

L13 1 (L4 OR L5 OR L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR L12) AND (BENZOPYRONE OR COUMARINE)

=> d ibib abs tot

L13 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:429410 CAPLUS Full-text  
DOCUMENT NUMBER: 142:430138

TITLE: Preparation of benzopyrone derivatives as  
pesticides and bactericides

INVENTOR(S): Liu, Changling; Guan, Aiyang;  
Zhang, Hong; Zhang, Mingxing;  
Li, Zhengming; Li, Miao; Li,  
Lin; Li, Zhinian; Hou, Chunqiang

PATENT ASSIGNEE(S): Shenyang Research Institute of Chemical Industry,  
Peop. Rep. China

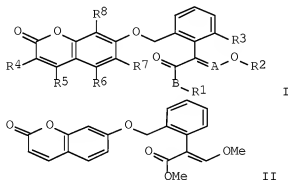
SOURCE: PCT Int. Appl., 37 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005044813	A1	20050519	WO 2004-CN1255	20041104
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CN 1616448	A	20050518	CN 2003-10105079	20031111
EP 1683792	A1	20060726	EP 2004-797287	20041104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1823052	A	20060823	CN 2004-80020125	20041104
JP 2007510674	T	20070426	JP 2006-538636	20041104
US 2007037876	A1	20070215	US 2006-573529	20060324
PRIORITY APPLN. INFO.:			CN 2003-10105079	A 20031111
			WO 2004-CN1255	W 20041104

OTHER SOURCE(S): MARPAT 142:430138  
GI



AB The title compds. I [wherein A = CH or N; B = O, S, NH, or alkylamino; R1 and R2 = independently H, alkyl, or haloalkyl; R3 = H, alkyl, haloalkyl, or alkoxy; R4-R8 = independently H, halo, CN, etc.] or isomers thereof are prepared as pesticides and/or bactericides. For example, the compound II was prepared from 7-hydroxybenzopyran-2-one and (E)-2-[2-(bromomethyl)phenyl]-3-methoxypropenoic acid Me ester (76.5%). I are suitable for prevention or cure of the following plant diseases: grape downy mildew, rice blast, tomato early blight, tomato late blight, wheat rust disease, wheat leaf spot, wheat powdery mildew, cucumber powdery mildew, cucumber downy mildew, cucumber botrytis, and so on. For example, II showed 100% effect on cucumber powdery mildew at 200 ppm.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS